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FILE 'PHIC' ENTERED AT 10:30:45 ON 19 MAR 2002

FILE 'PHIN' ENTERED AT 10:30:45 ON 19 MAR 2002

FILE 'PROMT' ENTERED AT 10:30:45 ON 19 MAR 2002

FILE 'SCISEARCH' ENTERED AT 10:30:45 ON 19 MAR 2002

FILE 'USPATFULL' ENTERED AT 10:30:45 ON 19 MAR 2002

FILE 'USPAT2' ENTERED AT 10:30:45 ON 19 MAR 2002

=> s B33(w)patatin
L1 18 B33(W) PATATIN

=> d l1 1-18

L1 ANSWER 1 OF 18 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2001:539152 BIOSIS
DN PREV200100539152
TI Simultaneous antagonistic modulation of enzyme activities in transgenic plants through the expression of a chimeric transcript.
AU Fernie, Alisdair R. (1); Roessner, Ute; Leisse, Andrea; Lubeck, Jens; Trethewey, Richard N.; Willmitzer, Lothar
CS (1) Max-Planck-Institut fuer Molekulare Pflanzenphysiologie, Am Muehlenberg 1, 14476, Golm: fernie@mpimp-golm.mpg.de Germany
SO Plant Physiology and Biochemistry (Paris), (October, 2001) Vol. 39, No. 10, pp. 825-830. print.
ISSN: 0981-9428.
DT Article
LA English
SL English

L1 ANSWER 2 OF 18 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.
AN 2001:32974238 BIOTECHNO
TI Simultaneous antagonistic modulation of enzyme activities in transgenic plants through the expression of a chimeric transcript
AU Fernie A.R.; Roessner U.; Leisse A.; Lubeck J.; Trethewey R.N.; Willmitzer L.
CS A.R. Fernie, M.-Planck-Inst. Molek. Pflanzenphys., Am Muhlenberg 1, 14476 Golm, Germany.
E-mail: fernie@mpimp-golm.mpg.de
SO Plant Physiology and Biochemistry, (2001), 39/10 (825-830), 34 reference(s)
CODEN: PPBIEX ISSN: 0981-9428
DT Journal; Article
CY France
LA English
SL English

L1 ANSWER 3 OF 18 CABA COPYRIGHT 2002 CABI
AN 2002:5806 CABA
DN 20013143024
TI Simultaneous antagonistic modulation of enzyme activities in transgenic plants through the expression of a chimeric transcript
AU Fernie, A. R.; Roessner, U.; Leisse, A.; Lubeck, J.; Trethewey, R. N.; Willmitzer, L.
CS Max-Planck-Institut fur Molekulare Pflanzenphysiologie, Am Muhlenberg 1, 14476 Golm, Germany.
SO Plant Physiology and Biochemistry, (2001) Vol. 39, No. 10, pp. 825-830. 34 ref.
ISSN: 0981-9428
DT Journal
LA English

L1 ANSWER 4 OF 18 CABA COPYRIGHT 2002 CABI
AN 2000:123163 CABA
DN 20001614169
TI Transformed potato plants as a model for studying the hormonal and carbohydrate regulation of tuberization
AU Aksenova, N. P.; Konstantinova, T. N.; Golyanovskaya, S. A.; Kossmann, J.; Willmitzer, L.; Romanov, G. A.
CS Timiryazev Institute of Plant Physiology, Russian Academy of Sciences, Botanicheskaya ul. 35, Moscow 127276, Russia.
SO Russian Journal of Plant Physiology, (2000) Vol. 47, No. 3, pp. 370-379. translated from Fiziologiya Rastenii (2000) 47 (3) 420-430 (Ru). 34 ref.
ISSN: 1021-4437
DT Journal
LA English

L1 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 2001:738080 CAPLUS
TI Simultaneous antagonistic modulation of enzyme activities in transgenic plants through the expression of a chimeric transcript
AU Fernie, A. R.; Roessner, U.; Leisse, A.; Lubeck, J.; Trethewey, R. N.; Willmitzer, L.
CS Max-Planck-Institut fur Molekulare Pflanzenphysiologie, Golm, 14476, Germany
SO Plant Physiol. Biochem. (Paris, Fr.) (2001), 39(10), 825-830
CODEN: PPBIEX; ISSN: 0981-9428
PB Editions Scientifiques et Medicales Elsevier
DT Journal
LA English
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2002 ACS

AN 2000:397804 CAPLUS
DN 133:132551
TI Transformed potato plants as a model for studying the hormonal and carbohydrate regulation of tuberization
AU Aksenova, N. P.; Konstantinova, T. N.; Golyanovskaya, S. A.; Kossmann, J.; Willmitzer, L.; Romanov, G. A.
CS Timiryazev Institute of Plant Physiology, Russian Academy of Sciences, Moscow, 127276, Russia
SO Russ. J. Plant Physiol. (2000), 47(3), 370-379
CODEN: RJPPE2; ISSN: 1021-4437
PB MAIK Nauka/Interperiodica Publishing
DT Journal
LA English
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 1998:388622 CAPLUS
DN 129:37225
TI NAD-malic enzyme gene recombinant constructions for transgenic potato plants having increased starch content
IN Leaver, Christopher John; Hill, Steven Arthur; Jenner, Helen Louise; Winning, Brenda May
PA Isis Innovation Limited, UK; Leaver, Christopher John; Hill, Steven Arthur; Jenner, Helen Louise; Winning, Brenda May
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9823757	A1	19980604	WO 1997-GB3245	19971127
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9851276	A1	19980622	AU 1998-51276	19971127
	AU 729089	B2	20010125		
	EP 941340	A1	19990915	EP 1997-945952	19971127
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, RO				
	BR 9713551	A	20000125	BR 1997-13551	19971127
	CN 1245535	A	20000223	CN 1997-181491	19971127
	JP 2001504351	T2	20010403	JP 1998-524427	19971127
PRAI	GB 1996-24685	A	19961127		
	WO 1997-GB3245	W	19971127		

L1 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 1998:175323 CAPLUS
DN 128:189192
TI Plant promoters specific for sink organ expression of genes
IN Rocha-Sosa, Mario; Sonnewald, Uwe; Frommer, Wolf-bernd; Willmitzer, Lothar; Stratmann, Marina
PA Hoechst Schering Agrevo G.m.b.H., Germany
SO U.S., 16 pp. Cont.-in-part of U.S. 5,436,393.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5723757	A	19980303	US 1995-448110	19950523
	DE 3843627	A1	19900705	DE 1988-3843627	19881221
	US 5436393	A	19950725	US 1992-995911	19921222
PRAI	DE 1988-3843627		19881221		
	US 1989-454363		19891221		
	US 1992-995911		19921222		

L1 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 1997:736269 CAPLUS
DN 127:357096
TI Transgenic potato manufacturing high molecular inulin for industrial use
IN Heyer, Arnd G.; Wendenburg, Regina
PA Suedzucker Aktiengesellschaft Mannheim/Ochsenfurt, Germany; KWS Kleinwanzlebener Saatzucht Ag Vorm. Rabbethge & Giesecke
SO Ger. Offen., 13 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19617687	A1	19971106	DE 1996-19617687	19960503
	DE 19617687	C2	20001116		
	WO 9742331	A1	19971113	WO 1997-EP2195	19970429
	W: AU, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9727741	A1	19971126	AU 1997-27741	19970429
	AU 718897	B2	20000420		
	EP 944727	A1	19990929	EP 1997-921819	19970429
	R: AT, BE, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE, IE, FI				
	JP 2001517930	T2	20011009	JP 1997-539497	19970429
	US 6255562	B1	20010703	US 1998-180143	19981103
PRAI	DE 1996-19617687	A	19960503		
	WO 1997-EP2195	W	19970429		

L1 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 1994:293011 CAPLUS
DN 120:293011
TI Genes for levan synthetic enzymes of plants and transgenic plants expressing these genes
IN Roeber, Manuela; Geier, Gebhardt; Geider, Klaus; Willmitzer, Lothar
PA Institut fuer Genbiologische Forschung Berlin GmbH, Germany
SO Ger. Offen., 15 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4227061	A1	19940217	DE 1992-4227061	19920812
	WO 9404692	A1	19940303	WO 1993-EP2110	19930809
	W: AU, CA, HU, JP, KR, RU, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 663956	A1	19950726	EP 1994-908166	19930809
	HU 70977	A2	19951128	HU 1995-400	19930809
	JP 08500015	T2	19960109	JP 1993-505845	19930809
	AU 682472	B2	19971009	AU 1993-49468	19930809
	US 5792923	A	19980811	US 1995-381936	19950209
	US 6028249	A	20000222	US 1997-943374	19971003
	AU 9851084	A1	19980319	AU 1998-51084	19980109
	AU 725657	B2	20001019		
PRAI	DE 1992-4227061	A	19920812		

WO 1993-EP2110 W 19930809

L1 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 1991:18965 CAPLUS
DN 114:18965
TI Potato tuber-specific transcriptional unit
IN Rocha-Sosa, Mario; Sonnewald, Uwe; Frommer, Wolf Bernd; Willmitzer, Lothar; Stratmann, Marina
PA Institut fuer Genbiologische Forschung Berlin G.m.b.H., Fed. Rep. Ger.
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 375092	A1	19900627	EP 1989-250117	19891218
	EP 375092	B1	19960124		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	DE 3843627	A1	19900705	DE 1988-3843627	19881221
	AT 133448	E	19960215	AT 1989-250117	19891218
	ES 2086315	T3	19960701	ES 1989-250117	19891218
	DK 8906515	A	19900622	DK 1989-6515	19891220
	CA 2006454	AA	19900621	CA 1989-2006454	19891221
	JP 02283276	A2	19901120	JP 1989-329772	19891221
	JP 2993979	B2	19991227		
	IL 92838	A1	19971120	IL 1989-92838	19891221
PRAI	DE 1988-3843627		19881221		

L1 ANSWER 12 OF 18 Elsevier BIOBASE COPYRIGHT 2002 Elsevier Science B.V.
AN 2001237924 ESBIOBASE
TI Simultaneous antagonistic modulation of enzyme activities in transgenic plants through the expression of a chimeric transcript
AU Fernie A.R.; Roessner U.; Leisse A.; Lubeck J.; Trethewey R.N.; Willmitzer L.
CS A.R. Fernie, M.-Planck-Inst. Molek. Pflanzenphys., Am Muhlenberg 1, 14476 Golm, Germany.
E-mail: fernie@mpimp-golm.mpg.de
SO Plant Physiology and Biochemistry, (2001), 39/10 (825-830), 34 reference(s)
CODEN: PPBIEX ISSN: 0981-9428
DT Journal; Article
CY France
LA English
SL English

L1 ANSWER 13 OF 18 IFIPAT COPYRIGHT 2002 IFI
AN 2628117 IFIPAT;IFIUDB;IFICDB
TI POTATO TUBER SPECIFIC TRANSCRIPTIONAL REGULATION; DNA EXPRESSION CASSETTE SEQUENCE
IN Frommer Wolf-Bernd (DE); Rocha-Sosa Mario (MX); Sonnewald Uwe (DE); Stratmann Marina (DE); Willmitzer Lothar (DE)
PA Institut fur Genbiologische Forschung DE (36617)
PI US 5436393 19950725 (CITED IN 009 LATER PATENTS)
AI US 1992-995911 19921222
RLI US 1989-454363 19891221 CONTINUATION ABANDONED
PRAI DE 1988-3843627 19881221
FI US 5436393 19950725
DT UTILITY; REASSIGNED
FS CHEMICAL
CLMN 7
GI 3 Drawing Sheet(s), 3 Figure(s).

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CP Copyright .COPYRGT. 2001 INIST-CNRS. All rights reserved.
TIEN Simultaneous antagonistic modulation of enzyme activities in transgenic plants through the expression of a chimeric transcript
AU FERNIE Alisdair R.; ROESSNER Ute; LEISSE Andrea; LUBECK Jens; TRETHEWEY Richard N.; WILLMITZER Lothar
CS Max-Planck-Institut fuer Molekulare Pflanzenphysiologie, Am Muehlenberg 1, 14476 Golm, Germany, Federal Republic of
SO Plant physiology and biochemistry : (Paris), (2001), 39(10), 825-830, 34 refs.
ISSN: 0981-9428 CODEN: PPBIEX
DT Journal
BL Analytic
CY France
LA English
AV INIST-10570, 354000096011220010

L1 ANSWER 15 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 2001:856980 SCISEARCH
GA The Genuine Article (R) Number: 484KT
TI Simultaneous antagonistic modulation of enzyme activities in transgenic plants through the expression of a chimeric transcript
AU Fernie A R (Reprint); Roessner U; Leisse A; Lubeck J; Trethewey R N; Willmitzer L
CS Max Planck Inst Mol Pflanzenphysiol, Muhlenberg 1, D-14476 Golm, Germany (Reprint); Max Planck Inst Mol Pflanzenphysiol, D-14476 Golm, Germany
CYA Germany
SO PLANT PHYSIOLOGY AND BIOCHEMISTRY, (OCT 2001) Vol. 39, No. 10, pp. 825-830.
Publisher: GAUTHIER-VILLARS/EDITIONS ELSEVIER, 23 RUE LINOIS, 75015 PARIS, FRANCE.
ISSN: 0981-9428.
DT Article; Journal
LA English
REC Reference Count: 34
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L1 ANSWER 16 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 2000:449341 SCISEARCH
GA The Genuine Article (R) Number: 322VU
TI Transformed potato plants as a model for studying the hormonal and carbohydrate regulation of tuberization
AU Aksenova N P (Reprint); Konstantinova T N; Golyanovskaya S A; Kossmann J; Willmitzer L; Romanov G A
CS RUSSIAN ACAD SCI, KA TIMIRYAZEV PLANT PHYSIOL INST, BOT SKAYA UL 35, MOSCOW 127276, RUSSIA (Reprint); MAX PLANCK INST MOL PLANT PHYSIOL, D-14476 POTSDAM, GERMANY
CYA RUSSIA; GERMANY
SO RUSSIAN JOURNAL OF PLANT PHYSIOLOGY, (MAY-JUN 2000) Vol. 47, No. 3, pp. 370-379.
Publisher: MAIK NAUKA/INTERPERIODICA, C/O KLUWER ACADEMIC-PLENUM PUBLISHERS, 233 SPRING ST, NEW YORK, NY 10013-1578.
ISSN: 1021-4437.
DT Article; Journal
FS AGRI
LA English
REC Reference Count: 34
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L1 ANSWER 17 OF 18 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 1999:563652 SCISEARCH
GA The Genuine Article (R) Number: 216NQ
TI In vitro growth and tuber formation by transgenic potato plants harboring rolC or rolB genes under control of the patatin promoter

AU Aksenova N P (Reprint); Konstantinova T N; Golyanovskaya S A; Schmulling T; Kossmann J; Willmitzer L; Romanov G A
CS RUSSIAN ACAD SCI, TIMIRYAZEV INST PLANT PHYSIOL, BOTANICHESKAYA UL 35, MOSCOW 127276, RUSSIA (Reprint); UNIV TUBINGEN, TUBINGEN, GERMANY; INST GENET BIOL RES, BERLIN, GERMANY
CYA RUSSIA; GERMANY
SO RUSSIAN JOURNAL OF PLANT PHYSIOLOGY, (JUL-AUG 1999) Vol. 46, No. 4, pp. 513-519.
Publisher: MAIK NAUKA/INTERPERIODICA, C/O PLENUM/CONSULTANTS BUREAU 233 SPRING ST, NEW YORK, NY 10013.
ISSN: 1021-4437.
DT Article; Journal
FS AGRI
LA English
REC Reference Count: 28
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L1 ANSWER 18 OF 18 USPATFULL
AN 95:67381 USPATFULL
TI Potato tuber specific transcriptional regulation
IN Rocha-Sosa, Mario, Cuernavaca, Mexico
Sonnewald, Uwe, Berlin, Germany, Federal Republic of
Frommer, Wolf-Bernd, Berlin, Germany, Federal Republic of
Willmitzer, Lothar, Berlin, Germany, Federal Republic of
Stratmann, Marina, Berlin, Germany, Federal Republic of
PA Institut fur Genbiologische, Germany, Federal Republic of (non-U.S. corporation)
PI US 5436393 19950725
AI US 1992-995911 19921222 (7)
RLI Continuation of Ser. No. US 1989-454363, filed on 21 Dec 1989, now abandoned
PRAI DE 1988-38436272 19881221
DT Utility
FS Granted
LN.CNT 733
INCL INCLM: 800/205.000
INCLS: 800/DIG.042; 435/172.300; 435/240.400; 536/024.100
NCL NCLM: 800/287.000
NCLS: 536/024.100; 800/317.200
IC [6]
ICM: A01H001-04
ICS: C12N015-00; C12N005-00; C07H021-04
EXF 435/69.1; 435/70.1; 435/172.3; 435/240.4; 435/252.2; 435/252.3; 435/320.1; 536/24.1; 800/205; 800/DIG.42; 800/DIG.43
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

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 s alcA(w)alcR
L2          28 ALCA(W) ALCR

=> d 1-28 au ti

L2   ANSWER 1 OF 28  AGRICOLA
AU   Felenbok, B.
TI   The ethanol utilization regulon of Aspergillus nidulans: the alcA
     -alcR system as a tool for the expression of recombinant
     proteins.

L2   ANSWER 2 OF 28  BIOBUSINESS  COPYRIGHT 2002 BIOSIS
AU   FELENBOK B
TI   The ethanol utilization regulon of Aspergillus nidulans: The alcA
     -alcR system as a tool for the expression of recombinant
     proteins.

L2   ANSWER 3 OF 28  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU   FELENBOK B
TI   THE ETHANOL UTILIZATION REGULON OF ASPERGILLUS-NIDULANS THE ALCA
     -ALCR SYSTEM AS A TOOL FOR THE EXPRESSION OF RECOMBINANT
     PROTEINS.

L2   ANSWER 4 OF 28  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU   DOY C H; PATEMAN J A; OLSEN J E; KANE H J; CREASER E H
TI   GENOMIC CLONES OF ASPERGILLUS-NIDULANS CONTAINING ALC-A THE STRUCTURAL
     GENE FOR ALCOHOL DEHYDROGENASE AND ALC-R A REGULATORY GENE FOR ETHANOL
     METABOLISM.

L2    ANSWER 5 OF 28  BIOTECHNO  COPYRIGHT 2002 Elsevier Science B.V.
AU    Felenbok B.
TI    The ethanol utilization regulon of Aspergillus nidulans: The alcA
      -alcR system as a tool for the expression of recombinant
      proteins

L2    ANSWER 6 OF 28  BIOTECHNO  COPYRIGHT 2002 Elsevier Science B.V.
AU    Doy C.H.; Pateman J.A.; Olsen J.E.; et al.
TI    Genomic clones of Aspergillus nidulans containing alcA, the structural
      gene for alcohol dehydrogenase and alcR, a regulatory gene for ethanol
      metabolism

L2   ANSWER 7 OF 28  CAPLUS  COPYRIGHT 2002 ACS
IN   Jepson, Ian; Greenland, Andrew James; Caddick, Mark Xavier; Tomsett,
     Arthur Brian
TI   Protein/alcohol or protein/ketone combination inducible gene expression
     system for use in plants

L2   ANSWER 8 OF 28  CAPLUS  COPYRIGHT 2002 ACS
IN   Clarke, Eric Daniel; Chrystal, Ewan James Turner; Jepson, Ian; Paine,
     Jacqueline Ann Mary
TI   Ester/alcohol system for inducible gene expression system for use in
     plants

L2   ANSWER 9 OF 28  CAPLUS  COPYRIGHT 2002 ACS
IN   Jepson, Ian; Chu, Chengcai; Qu, Nan; Sonnewald, Uwe
TI   Method of increasing plant yield by selectively controlling the expression
     of DNA sequences coding for proteins involved in the transport, metab. and
     uptake of sucrose

L2   ANSWER 10 OF 28  CAPLUS  COPYRIGHT 2002 ACS
IN   Jepson, Ian; Ebneth, Marcus; Sonnewald, Uwe
TI   Genetic method for controlling sprouting in potato tubers

L2   ANSWER 11 OF 28  CAPLUS  COPYRIGHT 2002 ACS
```

AU Salter, Michael G.; Paine, Jacqueline A.; Riddell, Kay V.; Jepson, Ian; Greenland, Andrew J.; Caddick, Mark X.; Tomsett, A. Brian
TI Characterization of the ethanol-inducible alc gene expression system for transgenic plants

L2 ANSWER 12 OF 28 CAPLUS COPYRIGHT 2002 ACS
AU Lenouvel, Francois; Nikolaev, Igor; Felenbok, Beatrice
TI In vitro recognition of specific DNA targets by AlcR, a zinc binuclear cluster activator different from the other proteins of this class

L2 ANSWER 13 OF 28 CAPLUS COPYRIGHT 2002 ACS
IN Jepson, Ian
TI Chemically inducible plant expression vectors encoding herbicide resistance in transgenic plants

L2 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2002 ACS
IN Caddick, Mark Xavier; Greenland, Andrew James; Riddell, Kay Victoria; Schuch, Wolfgang Walter; Tomsett, Arthur Brian
TI Chemically inducible expression cassettes for plants

L2 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2002 ACS
AU Felenbok, Beatrice
TI The ethanol utilization regulon of Aspergillus nidulans: the **alcA -alcR** system as a tool for the expression of recombinant proteins

L2 ANSWER 16 OF 28 CAPLUS COPYRIGHT 2002 ACS
AU Pateman, John A.; Doy, Colin H.; Olsen, Jane E.; Kane, Heather J.; Creaser, Ernest J.
TI Molecular analysis of alcohol metabolism in Aspergillus

L2 ANSWER 17 OF 28 CAPLUS COPYRIGHT 2002 ACS
AU Doy, Colin H.; Pateman, John A.; Olsen, Jane E.; Kane, Heather J.; Creaser, Ernest H.
TI Genomic clones of Aspergillus nidulans containing alcA, the structural gene for alcohol dehydrogenase and alcR, a regulatory gene for ethanol metabolism

L2 ANSWER 18 OF 28 CAPLUS COPYRIGHT 2002 ACS
AU Pateman, J. A.; Doy, C. H.; Olsen, Jane; Kane, Heather
TI Genes for alcohol utilization in the lower eukaryote Aspergillus nidulans

L2 ANSWER 19 OF 28 CAPLUS COPYRIGHT 2002 ACS
AU Pateman, J. A.; Doy, C. H.; Olsen, J. E.; Norris, U.; Creaser, E. H.; Hynes, M.
TI Regulation of alcohol dehydrogenase (ADH) and aldehyde dehydrogenase (AldDH) in Aspergillus nidulans

L2 ANSWER 20 OF 28 CIN COPYRIGHT 2002 ACS
TI April Patent Digest

L2 ANSWER 21 OF 28 CROPU COPYRIGHT 2002 DERWENT INFORMATION LTD
IN Jepson I
TI A chemically inducible cassette for expressing herbicide resistance gene in plants and derived plants, particularly for resistance to glyphosate, avoids constitutive expression and minimizes development of herbicide tolerant weeds.

L2 ANSWER 22 OF 28 FSTA COPYRIGHT 2002 IFIS
AU Felenbok, B.
TI The ethanol utilization regulon of Aspergillus nidulans: the **alcA -alcR** system as a tool for the expression of recombinant proteins.

L2 ANSWER 23 OF 28 LIFESCI COPYRIGHT 2002 CSA
AU Pateman, J.A.; Doy, C.H.; Olsen, J.E.; Kane, H.J.; Creaser, E.H.; Timberlake, W.E. [editor]
TI Molecular analysis of alcohol metabolism in Aspergillus . MOLECULAR GENETICS OF FILAMENTOUS FUNGI.

L2 ANSWER 24 OF 28 LIFESCI COPYRIGHT 2002 CSA
AU Doy, C.H.; Pateman, J.A.; Olsen, J.E.; Kane, H.J.; Creaser, E.H.
TI Genomic clones of Aspergillus nidulans containing alcA , the structural gene for alcohol dehydrogenase and alcR , a regulatory gene for ethanol metabolism.

L2 ANSWER 25 OF 28 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
AU FELENBOK B.
TIEN The ethanol utilization regulon of Aspergillus nidulans : the **alcA-alcR** system as a tool for the expression of recombinant proteins

L2 ANSWER 26 OF 28 SCISEARCH COPYRIGHT 2002 ISI (R)
AU FELENBOK B (Reprint)
TI THE ETHANOL UTILIZATION REGULON OF ASPERGILLUS-NIDULANS - THE **ALCA -ALCR** SYSTEM AS A TOOL FOR THE EXPRESSION OF RECOMBINANT PROTEINS

L2 ANSWER 27 OF 28 USPATFULL
IN Greenland, Andrew James, Bracknell, Great Britain
Thomas, Didier Rene Philippe, Bracknell, Great Britain
Jepson, Ian, Bracknell, Great Britain
TI DNA constructs comprising protease encoding sequences or inhibitors thereof

L2 ANSWER 28 OF 28 USPATFULL
IN Meyerowitz, Elliot M., Pasadena, CA, United States
Clark, Steven E., Ann Arbor, MI, United States
Williams, Robert W., Pasadena, CA, United States
TI Plant clavata1 nucleic acids, transformed plants, and proteins

=> d 7-11 13-15

L2 ANSWER 7 OF 28 CAPLUS COPYRIGHT 2002 ACS
AN 2001:101335 CAPLUS
DN 134:158477
TI Protein/alcohol or protein/ketone combination inducible gene expression system for use in plants
IN Jepson, Ian; Greenland, Andrew James; Caddick, Mark Xavier; Tomsett, Arthur Brian
PA Zeneca Limited, UK
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001009357	A2	20010208	WO 2000-GB2750	20000718
	WO 2001009357	A3	20011011		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI GB 1999-18154 A 19990802

L2 ANSWER 8 OF 28 CAPLUS COPYRIGHT 2002 ACS
AN 2000:535295 CAPLUS
DN 133:145902
TI Ester/alcohol system for inducible gene expression system for use in plants
IN Clarke, Eric Daniel; Chrystal, Ewan James Turner; Jepson, Ian; Paine, Jacqueline Ann Mary
PA Zeneca Limited, UK
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000044917	A1	20000803	WO 1999-GB4348	19991222
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1151120	A1	20011107	EP 1999-962394	19991222
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9917010	A	20020122	BR 1999-17010	19991222
PRAI	GB 1999-2234	A	19990201		
	WO 1999-GB4348	W	19991222		

OS MARPAT 133:145902
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 9 OF 28 CAPLUS COPYRIGHT 2002 ACS
AN 1999:388312 CAPLUS
DN 131:40548
TI Method of increasing plant yield by selectively controlling the expression of DNA sequences coding for proteins involved in the transport, metab. and uptake of sucrose
IN Jepson, Ian; Chu, Chengcai; Qu, Nan; Sonnewald, Uwe
PA Zeneca Limited, UK
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9929881	A1	19990617	WO 1998-GB3687	19981210
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

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     AU 9914961        A1   19990628       AU 1999-14961    19981210
     EP 1036184        A1   20000920       EP 1998-959028   19981210
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2001526042     T2   20011218       JP 2000-524452   19981210
PRAI EP 1997-121829    A    19971211
     WO 1998-GB3687    W    19981210
RE.CNT  5     THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2   ANSWER 10 OF 28  CAPLUS  COPYRIGHT 2002 ACS
AN   1999:113828  CAPLUS
DN   130:192735
TI   Genetic method for controlling sprouting in potato tubers
IN   Jepson, Ian; Ebneth, Marcus; Sonnewald, Uwe
PA   Zeneca Limited, UK
SO   PCT Int. Appl., 89 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 9906578         A2   19990211       WO 1998-GB2023   19980710
     WO 9906578         A3   19990422
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9882341         A1   19990222       AU 1998-82341    19980710
     EP 1017830         A1   20000712       EP 1998-932412   19980710
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     BR 9811493         A    20000919       BR 1998-11493    19980710
PRAI EP 1997-113118    A    19970730
     WO 1998-GB2023    W    19980710

L2   ANSWER 11 OF 28  CAPLUS  COPYRIGHT 2002 ACS
AN   1998:717437  CAPLUS
DN   130:105798
TI   Characterization of the ethanol-inducible alc gene expression system for
     transgenic plants
AU   Salter, Michael G.; Paine, Jacqueline A.; Riddell, Kay V.; Jepson, Ian;
     Greenland, Andrew J.; Caddick, Mark X.; Tomsett, A. Brian
CS   School of Biological Sciences, Donnan Laboratories, The University of
     Liverpool, Liverpool, L69 7ZD, UK
SO   Plant J. (1998), 16(1), 127-132
     CODEN: PLJUED; ISSN: 0960-7412
PB   Blackwell Science Ltd.
DT   Journal
LA   English
RE.CNT  14    THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2   ANSWER 13 OF 28  CAPLUS  COPYRIGHT 2002 ACS
AN   1997:234349  CAPLUS
DN   126:221460
TI   Chemically inducible plant expression vectors encoding herbicide
     resistance in transgenic plants
IN   Jepson, Ian
```

PA Zeneca Limited, UK; Jepson, Ian
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9706269	A1	19970220	WO 1996-GB1883	19960802
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	CA 2224732	AA	19970220	CA 1996-2224732	19960802
	AU 9666278	A1	19970305	AU 1996-66278	19960802
	AU 711653	B2	19991021		
	EP 843730	A1	19980527	EP 1996-925925	19960802
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1197483	A	19981028	CN 1996-197232	19960802
	BR 9609886	A	19990525	BR 1996-9886	19960802
	JP 11510695	T2	19990921	JP 1996-508224	19960802
	NO 9800450	A	19980401	NO 1998-450	19980202
PRAI	GB 1995-15941		19950803		
	WO 1996-GB1883		19960802		

L2 ANSWER 14 OF 28 CAPLUS COPYRIGHT 2002 ACS
AN 1994:5056 CAPLUS
DN 120:5056
TI Chemically inducible expression cassettes for plants
IN Caddick, Mark Xavier; Greenland, Andrew James; Riddell, Kay Victoria; Schuch, Wolfgang Walter; Tomsett, Arthur Brian
PA Zeneca Ltd., UK
SO PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9321334	A1	19931028	WO 1993-GB764	19930413
	W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9339019	A1	19931118	AU 1993-39019	19930413
	EP 637339	A1	19950208	EP 1993-908031	19930413
	EP 637339	B1	20011031		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 207962	E	20011115	AT 1993-908031	19930413
PRAI	GB 1992-8117	A	19920413		
	GB 1992-8954	A	19920424		
	WO 1993-GB764	A	19930413		

L2 ANSWER 15 OF 28 CAPLUS COPYRIGHT 2002 ACS
AN 1991:75856 CAPLUS
DN 114:75856
TI The ethanol utilization regulon of Aspergillus nidulans: the **alcA** **-alcR** system as a tool for the expression of recombinant proteins
AU Felenbok, Beatrice

CS Inst. Genet. Microbiol., Orsay, 91405, Fr.
SO J. Biotechnol. (1991), 17(1), 11-17
CODEN: JBITD4; ISSN: 0168-1656
DT Journal; General Review
LA English

=>

L1 ANSWER 1 OF 5 USPATFULL
ACCESSION NUMBER: 2000:128560 USPATFULL
TITLE: Modification of soluble solids in fruit using sucrose phosphate synthase encoding sequence
INVENTOR(S): Shewmaker, Christine, Woodland, CA, United States
PATENT ASSIGNEE(S): Calgene LLC, Davis, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6124528		20000926	
	WO 9715678		19970501	
APPLICATION INFO.:	US 1998-51341		19980406	(9)
	WO 1996-US17351		19961025	
			19980406	PCT 371 date
			19980406	PCT 102(e) date

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-549016, filed on 27 Oct 1995, now patented, Pat. No. US 5914446 which is a continuation-in-part of Ser. No. US 1995-372200, filed on 12 Jan 1995, now patented, Pat. No. US 5750869
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Nelson, Amy J.
LEGAL REPRESENTATIVE: Rae-Venter, Barbara, Wahlsten, JenniferRae-Venter Law Group, P.C.
NUMBER OF CLAIMS: 49
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 30 Drawing Figure(s); 27 Drawing Page(s)
LINE COUNT: 3242
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to methods for the expression of sucrose phosphate synthase encoding sequences alone or in cooperation with sugar metabolizing enzyme sequences to modify the soluble solids in plant fruit tissue. Depending on whether sense or antisense sequences are used, the method permits an increased or decreased sweetness in plant fruit tissue, such as tomato fruit.

DETD . . . in certain tissues or under certain growth conditions, include those from napin, seed or leaf ACP, zein, and the like. **Fruit specific** promoters are also known, one such promoter is the E8 promoter, described in Deikman et al. (1988) EMBO J. 2:3315-3320;. . . and DellaPenna et al. (1989) Plant Cell 1:53-63, the teachings of which are incorporated herein by reference. An E8-SPS construct (**fruit -specific** promoter) will express SPS in a **fruit-specific** manner, whereby the levels of sucrose produced in the fruit may be elevated. If coupled with antisense acid **invertase**, the increase in sucrose would be maintained. This is a particular issue in tomatoes where acid **invertase** present in the fruit drives the production of glucose and fructose from sucrose.

DETD . . . by glucose and fructose being higher than sucrose. The SPS activity and sugar content data indicate that the endogenous acid **invertase** found in ripening tomato fruit contributed to the observed increases in glucose and fructose. Acid levels in the **fruit-specific** E8/SPS constructs also were observed, correlating acid content to an increase in sugar content. These data collectively show that SPS. . .

DETD . . . fruit. The data of Table 18 and 19 demonstrate that increased SPS activity from transgenic expression in fruit by a **fruit specific** promoter can produce an overall net increase in sugars in the fruit. Due to the endogenous acid **invertase** found in ripening tomato fruit, increases in sugar are found in glucose and fructose.

CLM What is claimed is:

. . . its genome a first DNA construct comprising, as operably linked

components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a DNA sequence encoding sucrose phosphate synthase; and a second DNA construct comprising as operably linked components in. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said sucrose phosphate synthase and said acid **invertase** are produced in said plant fruit, whereby said amount of sweetness of plant fruit is increased as compared to the. . .

. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a DNA sequence encoding sucrose phosphate synthase; and a second DNA construct comprising, as operably linked components in. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said DNA sequence encoding acid **invertase** is in the antisense orientation, whereby the amount of sweetness of said plant fruit is decreased as compared to the. . .

. . . construct, said first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a first **fruit specific** promoter and a DNA sequence encoding sucrose phosphate synthase; and said second DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a second **fruit specific** promoter, and a DNA sequence encoding acid **invertase** to produce plant fruit, wherein both said first **fruit specific** promoter and said second **fruit specific** promoter function simultaneously, whereby the amount of sweetness of said plant fruit is increased as compared to plant fruit of. . .

. . . construct, said first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a first **fruit specific** promoter, and a DNA sequence encoding sucrose phosphate synthase; and said second DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a second **fruit specific** promoter and a DNA sequence encoding an acid **invertase**, wherein said first **fruit specific** promoter and second **fruit specific** promoter are functional in said plant fruit cell.

. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a maize DNA sequence encoding a polypeptide having sucrose phosphate synthase activity; and a second DNA construct comprising. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said polypeptide having sucrose phosphate synthase activity and said acid **invertase** are produced in said plant fruit, whereby said amount of sweetness of a plant fruit is increased as compared to. . .

. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a maize DNA sequence encoding a polypeptide having sucrose phosphate synthase activity; and a second DNA construct comprising,. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said DNA sequence encoding acid **invertase** is in the antisense orientation, whereby said sweetness of a plant fruit is decreased as compared to the sweetness of. . .

. . . construct, said first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a first **fruit specific** promoter, and a maize DNA sequence encoding a polypeptide having sucrose phosphate synthase activity; and said second DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a second **fruit**

specific promoter and a DNA sequence encoding an acid **invertase**, wherein said first **fruit specific** promoter and said second **fruit specific** promoter are functional in said plant fruit cell.

48. A method of decreasing the amount of sweetness of a plant fruit, said method comprising: growing a plant which. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a DNA sequence encoding a corn, potato, spinach, rice or sugar beet sucrose phosphate synthase; and a second. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said DNA sequence encoding acid **invertase** is in the antisense orientation, whereby said amount of sweetness of a plant fruit is decreased as compared to the. . .
. . . its genome a first DNA construct comprising, as operably linked components in the 5' to 3' direction of transcription, a **fruit specific** promoter and a DNA sequence encoding a corn, potato, spinach, rice or sugar beet sucrose phosphate synthase; and a second. . . 5' to 3' direction of transcription, a promoter functional in a plant fruit cell and a DNA sequence encoding acid **invertase**, wherein said sucrose phosphate synthase and said acid **invertase** are produced in said plant fruit, whereby said amount of sweetness of a plant fruit is increased as compared to. . .

L1 ANSWER 2 OF 5 USPATFULL

ACCESSION NUMBER:	1999:69835 USPATFULL
TITLE:	Soluble solids modification using sucrose phosphate synthase encoding sequences
INVENTOR(S):	Shewmaker, Christine K., Woodland, CA, United States
PATENT ASSIGNEE(S):	Calgene, LLC, Davis, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5914446		19990622
APPLICATION INFO.:	US 1995-549016		19951027 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-372200, filed on 12 Jan 1995, now patented, Pat. No. US 5750869		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Robinson, Douglas W.		
ASSISTANT EXAMINER:	Nelson, Amy J.		
LEGAL REPRESENTATIVE:	Rae-Venter Law Group, P.C.		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
LINE COUNT:	764		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to methods for the utilization of sucrose phosphate synthase encoding sequences to modify the soluble solids in plant sink tissue. The method permits an increase in the sweetness of tomato fruit.

SUMM . . . conditions, such as those from napin, seed or leaf ACP, the small subunit of RUBISCO, patatin, zein, and the like. **Fruit specific** promoters are also known, one such promoter is the E8 promoter, described in Deikman et al. (1988) EMBO J. 2:3315-3320;. . . and DellaPenna et al. (1989) Plant Cell 1:53-63, the teachings of which are incorporated herein by reference. An E8-SPS construct (**fruit -specific** promoter) will express SPS in a **fruit-specific** manner, whereby the levels of sucrose produced in the fruit may be elevated. If coupled with antisense **invertase**, the increase in sucrose would be maintained. This is a particular issue in tomatoes where acid **invertase** present in the fruit drives

the production of glucose and fructose from sucrose.

DETD . . . fruit. The data of table 4 and 5 demonstrate that increased SPS activity from transgenic expression in fruit by a **fruit specific** promoter can produce an overall net increase in sugars in the fruit. Due to the endogenous acid **invertase** found in ripening tomato fruit, increases in sugar are found in glucose and fructose.

L1 ANSWER 3 OF 5 USPATFULL

ACCESSION NUMBER: 1998:51938 USPATFULL
TITLE: Soluble solids modification using sucrose phosphate synthase encoding sequences
INVENTOR(S): Shewmaker, Christine K., Woodland, CA, United States
PATENT ASSIGNEE(S): Calgene, Inc., Davis, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5750869		19980512	
APPLICATION INFO.:	US 1995-372200		19950112	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Robinson, Douglas W.
ASSISTANT EXAMINER: Nelson, Amy J.
LEGAL REPRESENTATIVE: Rae-Venter Law Group, P.C.
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
LINE COUNT: 674
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to methods for the utilization of sucrose phosphate synthase encoding sequences to modify the soluble solids in plant sink tissue.

SUMM . . . conditions, such as those from napin, seed or leaf ACP, the small subunit of RUBISCO, patatin, zein, and the like. **Fruit specific** promoters are also known, one such promoter is the E8 promoter, described in Deikman et al. (1988) EMBO J. 2:3315-3320;. . . and DellaPenna et al. (1989) Plant Cell 1:53-63, the teachings of which are incorporated herein by reference. An E8-SPS construct (**fruit -specific** promoter) will express SPS in a **fruit-specific** manner, whereby the levels of sucrose produced in the fruit may be elevated. If coupled with antisense **invertase**, the increase in sucrose would be maintained. This is a particular issue in tomatoes where acid **invertase** present in the fruit drives the production of glucose and fructose from sucrose.

L1 ANSWER 4 OF 5 USPATFULL

ACCESSION NUMBER: 97:81131 USPATFULL
TITLE: Invertase genes and uses thereof
INVENTOR(S): Fitzmaurice, Leona C., San Diego, CA, United States
Mirkov, T. Erik, San Diego, CA, United States
Elliott, Kathryn J., San Diego, CA, United States
Butler, William Owen, San Diego, CA, United States
Konno, Yoshihiro, Onishi, Japan
Dickinson, Craig Duane, San Diego, CA, United States
PATENT ASSIGNEE(S): The Salk Institute Biotechnology/Industrial Associates, Inc., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5665579		19970909	
APPLICATION INFO.:	US 1994-245809		19940517	(8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-771331, filed on 4 Oct 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-660344, filed on 22 Feb 1991, now

abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Fox, David T.
ASSISTANT EXAMINER: McElwain, Elizabeth F.
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NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 17
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 3565
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Transgenic plants that are modified to produce fruits that have altered levels of soluble solids compared to non-transgenic species of the same species are provided. The transgenic plants are modified by introduction of DNA constructs that encode invertase operatively linked to DNA encoding regulatory regions that direct transcription of the DNA encoding invertase and to DNA encoding sequences that direct proper processing of the invertase through the secretory pathways of the plant and targeting of the invertase to the vacuole.

In particular, DNA constructs encoding tomato plant vacuolar invertase in operative linkage with a developmentally regulated promoter region are provided. Preferred regulatory and structural DNA is obtained from genomic DNA clones and cDNA clones encoding tomato fruit vacuolar invertases from the commercial tomato plant, Lycopersicon esculentum, and wild tomato plant, Lycopersicon pimpinellifolium.

Probes derived from the genomic DNA and cDNA, antibodies specific for tomato fruit invertase, and uses therefore, are also provided.

SUMM In certain embodiments, DNA sequences which are **fruit-specific** developmentally controlled regulatory sequences, other than **invertase** regulatory sequences, are provided. DNA constructs in which these regulatory regions are operably linked to genomic or cDNA encoding **invertase** are also provided. In the most preferred embodiments, the regulatory regions are selected such that **invertase** is expressed to a greater extent and earlier during fruit ripening than in non-transgenic plants.

DETD In addition, expression of the **invertase** gene in transgenic tomato plants may be accomplished, by operatively linking it to a developmentally regulated promoter. DNA encoding developmentally regulated promoter sequences obtained from the **invertase** structural gene and sequences that direct proper secretion and targeting of **invertase** have been identified and isolated, and DNA constructs containing DNA encoding **invertase** and **fruit-specific** genomic regulatory sequences are provided.

DETD Preferred promoter regions and other regulatory sequences are those that are **fruit specific** and developmentally controlled. A preferred regulatory region is one which would promote expression of recombinant **invertase** at an earlier stage of tomato fruit development than occurs when the subject plant does not express recombinant **invertase**. Other embodiments include regulatory sequences that promote expression throughout fruit development.

DETD TABLE I

Purification of **Invertase** from L. esculentum **Fruit Specific**

Purification	Protein (mg)	Activity (.mu.moles/min.)	Specific Activity (.mu.moles/mg protein)	Yield %

Crude homogenate
8012 71416 8.91 100
Ammonium sulfate
8175 61560 7.53. . .

DETD Since the promoter sequences are developmentally regulated and **fruit-specific**, tomato fruit tissues are assayed for **invertase** or GUS expression at various stages of fruit development. **Invertase** activity is determined according to the assay described in Example 1. GUS activity is determined according to the following protocol.

L1 ANSWER 5 OF 5 USPATFULL

ACCESSION NUMBER:	96:106598 USPATFULL
TITLE:	Invertase gene(s) and uses thereof
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PRIMARY EXAMINER:	Moody, Patricia R.		
LEGAL REPRESENTATIVE:	Burns, Doane, Swecker & Mathis, LLP		
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EXEMPLARY CLAIM:	1		
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Transgenic plants that are modified to produce fruits that have altered levels of soluble solids compared to non-transgenic plants of the same species are provided. The transgenic plants are prepared by introducing into plants DNA constructs that encode invertase operatively linked to DNA encoding regulatory regions that direct transcription of the DNA encoding invertase and operatively linked to DNA encoding amino acids that direct proper processing of the invertase through the secretory pathways of the plant and targeting of the invertase to the vacuole.

In particular, DNA constructs encoding tomato plant vacuolar invertase in operative linkage with a developmentally regulated promoter region are provided. Preferred regulatory and structural DNA is obtained from genomic DNA clones and cDNA clones encoding tomato fruit vacuolar invertases from the commercial tomato plant, Lycopersicon esculentum, and wild tomato plant, Lycopersicon pimpinellifolium.

Probes derived from the genomic DNA and cDNA, antibodies specific for tomato fruit invertase, and uses therefor, are also provided.

SUMM Thus, the designed pattern of expression of the **invertase** gene in transgenic tomato plants may be accomplished by operatively linking it to a developmentally regulated promoter. DNA encoding developmentally regulated regulatory sequences obtained from the **invertase** gene and sequences that direct proper secretion and targeting of **invertase** have been identified and isolated, and DNA constructs containing DNA encoding **invertase** and **fruit**-

specific genomic regulatory sequences are provided.

SUMM To accomplish the modification of **invertase** gene expression in tomato plants by transformation of tomato tissue with DNA encoding **invertase**, such DNA has been fused to developmentally responsive promoters. Preferred promoter regions and other regulatory sequences are those that are **fruit specific** and developmentally controlled. Such preferred regulatory regions include those that promote expression of recombinant **invertase** at an earlier stage of tomato fruit development than occurs when the subject plant does not express recombinant **invertase**. Other embodiments include regulatory sequences that promote expression throughout fruit development.